AMPEX

VPR-80 – DIAGNOSTICS REFERENCE CARD

MACHINE FAULTS	MACHINE FAULTS
100-03 AST PWA Timer 1 (U3)	103-33 Servo PWA Comm Fault
100-22 AST PWA Ref Vertical Absent	w/ Control PWA (receive)
100-31 AST PWA Ref Frame Absent	103-36 Servo PWA Timer 3 (U36)
100-47 AST PWA Timer 2 (U47)	103-49 Servo PWA Timer 1 (U49)
100-56 AST PWA Timer 3 (U56)	103-50 Servo PWA Capstan Runaway
	103-63 Servo PWA Take-up Reel Fault
101-02 Reg. PWA High Voltage (+250)	103-70 Servo PWA Supply Reel Fault
	103-77 Servo PWA Timer 4 (U77)
102-10 Control PWA RAM 1 (U10)	
102-23 Control PWA System Reset	104-23 Ref PWA Comm Fault (NTSC)
102-25 Control PWA RAM 2 (U25)	104-29 Ref PWA Comm Fault (PAL)
102-27 Control PWA Timer 1 (U27)	105-02 Parallel Remote PWA Comm
102-32 Control PWA Timer 2 (U32)	Fault w/Control PWA
102-44 Control PWA Interrupts	106-08 Serial Remote PWA Comm
	Fault w/Control PWA
102-P2 Control PWA Probe Fault	108-01 Regulator PWA +15V high
(during diagnostics)	108-02 Regulator PWA +15V below
	minimum
103-01 Servo PWA Arm Out of Window	108-03 Regulator PWA +15V low
103-12 Servo PWA Scan. Tach Missing	108-04 Regulator PWA -15V high
103-20 Servo PWA Comm Fault	108-05 Regulator PWA -15V below
w/Control PWA (Send)	minimum
103-22 Servo PWA Capstan Not Locked	108-06 Regulator PWA -15V low
to Reference	108-07 Regulator PWA +11V below
103-23 Servo PWA Timer 3 (U23)	minimum
103-24 Servo PWA ROM 1 Fault (U24)	109-03 Secondary Control Panel PWA
103-26 Servo PWA RAM Fault (U26)	Communication Fault
103-31 Servo PWA ROM 2 Fault (U31)	110-21 Primary Control Panel PWA
103-32 Servo PWA Internal RAM Fail.	Communication Fault

SYSTEM FAULTS	SYSTEM FAULTS
01 Reference Absent	12 Auto Record - Editor Off
02 Video Absent	13 Not Cued
03 Ref and Video Absent	14 Exit Point Before Entrance
04 RF Absent	15 Unable to Edit Optimize
05 Control Track Absent	16 Manual Tracking Disabled
06 Servos Not Locked	17 High Line Voltage
07 Control Track Not Locked	18 Low Line Voltage
08 Not Field Matched	20 Power Supply Over Temperature
09 Not Color Framed	21 Tape Out of Path
10 Scanner Phase Range Exceeded	22 Cue Point Not Found
11 Scanner Stalled	

FAULT DETECTION ON INITIALIZE

Control Initialize	Servo Initialize
Internal RAM	Internal RAM
External RAM	External RAM
Timers	PROM Checksum
Interrupts	Control Communications
System Reset	
Servo Communications	
Battery Backed-up Data	
PROM Checksum	

─── VPR-80 DIAGNOSTICS REFERENCE CARD ───

CONTROL MAIN PROGRAM BACKGROUND

Presence of:	Communications with:
Reference Frame Reference Vertical Reference Input Video Input RF Control Track	Servo PWA Parallel Remote PWA Reference PWA Serial Remote PWA Time Code Reader/Generator- Character Generator PWA Secondary Control Panel PWA Primary Control Panel PWA

+250 Volts in range
+15 volts high, low or below minimum
-15 volts high, low or below minimum
+11 volts below minimum
Line voltage high or low
Power supply temperature

SERVO MAIN PROGRAM BACKGROUND

Position of Tension Arm
Control Communications
Presence of Scanner Tachometer Pulses
Scanner Lock
Control Track Lock
AST Lock
Color Framing
Edit Phase Within Range
Scanner Stall

SWITCH	LEGEND	SWITCH	LEGEND
33	+	16	Auto - 5
32	-	15	EE - 6
31	TSO retard	14	Audio 2 lockout -1
30	TSO advance	13	Insert -2
29	Audio 1 speaker/phones	12	Remote 1-3
28	Audio 2 speaker/phones	11	Audio 3 lockout - Enter
27	Audio 3 speaker/phones	10	Assemble - 0
26	Color frame norm/invert	9	Remote 2 - ←
25	Chroma/eq norm/invert	8	Enter
24	Setup	7	Exit
23	Fault	6	Record
22	System	5	Play
21	Edit optimize	4	Variable Play
20	Video lockout - 7	3	Stop
19	Master lockout - 8	2	Cue
18	Ready - 9	1	Shuttle
17	Audio 1 lockout - 4		

CODE	MEANING
1	Switch closed
2	Switch opened after closing
3	Switch stuck shut
4	No switch closed
5	Multiple or incorrect switch or switches pressed